

01/12/2012 -----NSR IMS - PROJECT RECORD -----

PROJECT#: 173162 PERMIT#: 7711A STATUS: PENDING
RECEIVED: 01/03/2012 PROJTYPE: REVISION AUTHTYPE: CONSTRUCT
RENEWAL: 10/21/2014
PROJECT ADMIN NAME: SPECIAL CONDITION 9 A
PROJECT TECH NAME: ASPHALT ROOFING FACILITY

DISP CODE: C

ISSUED DT: 1/20/12

Assigned Team: MECH/AG TEAM**STAFF ASSIGNED TO PROJECT:**

OBRIEN , BRENDA - REVIEWR1_2 - AP INITIAL REVIEW
STANFORD , JOEL - REVIEW ENG - MECH/AG TEAM

CUSTOMER INFORMATION (OWNER/OPERATOR DATA)

ISSUED TO: BUILDING MATERIALS CORPORATION OF AMERICA
COMPANY NAME: Building Materials Corporation of America
CUSTOMER REFERENCE NUMBER: CN602717464

REGULATED ENTITY/SITE INFORMATION

REGULATED ENTITY NUMBER: RN100788959 ACCOUNT: DB0378S
PERMIT NAME: GAF MATERIALS

REGULATED ENTITY LOCATION: 2600 SINGLETON BLVD

REGION 04 - DFW METROPLEX NEAR CITY: DALLAS COUNTY: DALLAS

CONTACT DATACONTACT NAME: MR DURWIN
FARLOUGH

CONTACT ROLE: RESPONSIBLE OFFICIAL

JOB TITLE: PROJECT ENGINEER

ORGANIZATION: BUILDING MATERIALS CORPORATION OF
AMERICA

MAILING ADDRESS: 2600 SINGLETON BLVD , DALLAS, TX, 75212-3738

PHONE: (214) 637-8977 Ext: 0

FAX: (214) 637-5202 Ext: 0

EMAIL: dfarlough@gaf.com

RECEIVED

SEP 13 2013

TCEQ
CENTRAL FILE ROOM

CONTACT NAME: MS LATHA KAMBHAM

CONTACT ROLE: TECHNICAL CONTACT

JOB TITLE: SENIOR CONSULTANT

ORGANIZATION: TRINITY CONSULTANTS

MAILING ADDRESS: 12770 MERIT DR STE 900 , DALLAS, TX, 75251-1296

PHONE: (972) 661-8100 Ext: 0

PROJECT NOTES:

01/05/2012 DFC 1/5/2011

PERMIT NOTES:12/09/2009 INCORPORATE STANDARD PERMIT NO. 91414 AT NEXT AMEND. OR RENEWAL

TRACKING ELEMENTS:

TE Name	Start Date	Complete Date
APIRT RECEIVED PROJECT (DATE)	01/05/2012	
APIRT TRANSFERRED PROJECT TO TECHNICAL STAFF (DATE)	01/05/2012	
CENTRAL REGISTRY UPDATED	01/05/2012	01/05/2012
PROJECT RECEIVED BY ENGINEER (DATE)	01/06/2012	
WORKING DRAFT PERMIT REVIEW CYCLE	01/11/2012	01/11/2012
FINAL PACKAGE TO TEAM LEADER OR SUPERVISOR FOR REVIEW (DATE)	01/12/2012	
FINAL PACKAGE REWORK CYCLE		
FINAL PACKAGE TO SECTION MANAGER FOR REVIEW (DATE)		

Permit Unit Type:

**Permit Alteration
Source Analysis & Technical Review**

Company	Building Materials Corporation of America	Permit Number	7711A
City	Dallas	Project Number	173162
County	Dallas	Account Number	DB-0378-S
Project Type	Revision	Regulated Entity Number	RN100788959
Project Reviewer	Mr. Joel Stanford	Customer Reference Number	CN602717464
Site Name	Asphalt Roofing Facility		

Project Overview

Building Materials Corporation of America has requested alteration of their permit's Special Conditions to recognize a change in representation for the Standby Boiler (Emission Point Number BLR5) which would remove the hours of operation limitation and replace it with an annual fuel consumption limitation. This is to ensure operational flexibility and to allow for the potential of increased hours of operation at a lower heat input rate while the primary boiler is undergoing repairs. This is not expected to cause an increase in actual emissions due to the fact that the asphalt is maintained at a consistent temperature (based on heat input), regardless of whether the primary boiler or the standby boiler is being utilized.

No changes to the MAERT have been requested.

This alteration does not authorize an increase in emissions, change in method of control, or a change in character of emission.

Permit Concurrence and Related Authorization Actions

Is the applicant in agreement with special conditions?	Yes, 1/11/12
Company representative(s):	Ms. Latha Kambham, Trinity Consultants
Contacted Via:	E-mail
Date of contact:	1/11/12
Other permit(s) or permits by rule affected by this action:	No
List permit and/or PBR number(s) and actions required or taken:	N/A

	
Project Reviewer	Team Leader/Section Manager/Backup
1/20/12	1/20/12
Date	Date

Bryan W. Shaw, Ph.D., *Chairman*
Buddy Garcia, *Commissioner*
Carlos Rubinstein, *Commissioner*
Mark R. Vickery, P.G., *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
Protecting Texas by Reducing and Preventing Pollution

January 20, 2012

MR DURWIN FARLOUGH
PROJECT ENGINEER
BUILDING MATERIALS CORPORATION OF AMERICA
2600 SINGLETON BLVD
DALLAS TX 75212-3738

Re: Permit Alteration
Permit Number: 7711A
Asphalt Roofing Facility
Dallas, Dallas County
Regulated Entity Number: RN100788959
Customer Reference Number: CN602717464
Account Number: DB-0378-S

Dear Mr. Farlough:

This is in response to your letter received January 3, 2012, requesting alteration of the conditions of the above-referenced permit. We understand that you propose to replace an hours of operation limitation for the Standby Boiler with an annual fuel consumption limitation.

As indicated in Title 30 Texas Administrative Code § 116.116(c) [30 TAC § 116.116(c)], and based on our review, Permit Number 7711A is altered. Enclosed are the altered permit conditions to replace those currently attached to your permit. Please attach these to your permit.

No planned maintenance, startup, and shutdown emissions have been reviewed or represented in this application and none are authorized by this permit.

As of July 1, 2008, all analytical data generated by a mobile or stationary laboratory in support of compliance with air permits must be obtained from a NELAC (National Environmental Laboratory Accreditation Conference) accredited laboratory under the Texas Laboratory Accreditation Program or meet one of several exemptions. Specific information concerning which laboratories must be accredited and which are exempt may be found in 30 TAC § 25.4 and § 25.6.

For additional information regarding the laboratory accreditation program and a list of accredited laboratories and their fields of accreditation, please see the following Web site:

www.tceq.texas.gov/compliance/compliance_support/qa/env_lab_accreditation.html

Mr. Durwin Farlough
Page 2
January 20, 2012

Re: Permit Number: 7711A

For questions regarding the accreditation program, you may contact the Texas Laboratory Accreditation Program at (512) 239-3754 or by e-mail at labprgms@tceq.texas.gov.

Your cooperation in this matter is appreciated. If you need further information or have any questions, please contact Mr. Joel Stanford at (512) 239-0270 or write to the Texas Commission on Environmental Quality, Office of Air, Air Permits Division, MC-163, P.O. Box 13087, Austin, Texas 78711-3087.

This action is taken under authority delegated by the Executive Director of the Texas Commission on Environmental Quality.

Sincerely,

A handwritten signature in cursive script, appearing to read "Michael Wilson".

Michael Wilson, P.E., Director
Air Permits Division
Office of Air
Texas Commission on Environmental Quality

MPW/JS/js

Enclosure

cc: Section Manager, Air Pollution Control Program, City of Dallas Environmental and Health Services, Dallas
Air Section Manager, Region 4 - Fort Worth

Project Number: 173162

Special Conditions

Permit Number 7711A

Emission Limitations

1. This permit covers only those sources of emissions listed in the attached table entitled "Emission Sources - Maximum Allowable Emission Rates," and those sources are limited to the emission limits and other conditions specified in the attached table. **(8/10)**

Fuel Specifications

2. Fuel for the facilities shall be pipeline-quality, sweet natural gas. Use of any other fuel shall require prior written approval of the Executive Director of the Texas Commission on Environmental Quality (TCEQ). **(8/10)**
3. Upon request by the Executive Director of the TCEQ, the TCEQ Regional Director, or any local air pollution control program having jurisdiction, the holder of this permit shall provide a sample and/or an analysis of the fuel utilized in these facilities or shall allow air pollution control program representatives to obtain a sample for analysis. **(8/10)**

Federal Applicability

4. These facilities shall comply with all applicable requirements of the U.S. Environmental Protection Agency (EPA) regulations on Standards of Performance for New Stationary Sources in Title 40 Code of Federal Regulations (40 CFR) Part 60 promulgated for Asphalt Processing and Asphalt Roofing Manufacture in Subpart UU, for Small Industrial-Commercial-Institutional Steam Generating Units in Subpart Dc, and with the General Provisions set forth in Subpart A. **(8/10)**
5. These facilities shall comply with all applicable requirements of the EPA regulations on National Emission Standards for Hazardous Air Pollutants for Area Sources in 40 CFR Part 63 promulgated for Asphalt Processing and Asphalt Roofing Manufacture, Subparts A and AAAAAAA. **(8/10)**

Opacity/Visible Emission Limitations

6. In accordance with the EPA Test Method (TM) 9 or equivalent, and except for those periods described in Title 30 Texas Administrative Code (30 TAC) §§ 101.201 and 101.211, opacity of emissions from the Coalescing Filter Mist Systems (Emission Point No. [EPN] CFL/34), the Electrostatic Precipitator (EPN CFL/34) when used as a back-up control device for the filter mist systems, all dust collector stacks, all process heater vents, and building vents shall not exceed 5 percent averaged over a six-minute period. **(8/10)**
7. In accordance with the U.S. EPA TM 9 or equivalent, and except for those periods described in 30 TAC §§ 101.201 and 101.211, opacity of emissions from any asphalt storage tank exhaust gases discharged into the atmosphere shall not exceed 0 percent averaged

over a six-minute period, except for one consecutive 15-minute period in any 24-hour period when the transfer lines are being blown for clearing. The control device shall not be bypassed during this 15-minute period. Opacity of emissions from any blowing still shall not exceed 0 percent averaged over a six-minute period. Opacity of emissions from any storage silo and mineral handling facility shall not exceed 1 percent averaged over a six-minute period. **(8/10)**

8. No visible emissions from the asphalt processing and asphalt roofing manufacturing operations and facilities, roads, or travel areas shall leave the property. Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any six-minute period as determined using the U.S. EPA TM 22 or equivalent. If this condition is violated, additional controls or process changes may be required to limit visible particulate matter (PM) emissions. Stack emissions may leave the plant property provided that opacity restrictions are not violated. **(8/10)**

Operational Limitations, Work Practices, and Plant Design

9. The company has represented the following to comply with all TCEQ rules and regulations:
 - A. The Standby Boiler (EPN BLR5) shall be limited to a maximum fuel consumption of 18.02 million standard cubic feet per year. **(1/12)**
 - B. All filler and backing material shall be received and transferred within the building with no visible emissions leaving the building. **(8/10)**
 - C. The emissions from Stillyard Asphalt Storage Tank Nos. T-1, T-2, T-8, T-9, T-10, T-14, T-15, T-110, and T-120; from Blowing Stills T-13 and T-26; from truck and railcar loading and unloading operations; and from the self-seal asphalt storage tank shall be vented to the direct-flame incinerator. **(8/10)**
 - D. Upon issuance of the amended permit, the direct-flame incinerator shall be operated at an average incineration temperature of 1450°F measured immediately downstream of the incinerator, based on a one-hour averaging period, during normal operations. Normal operations are herein defined as any time period when asphalt blowing is occurring, and emissions from the blowing are vented to the direct-flame incinerator. The direct-flame incinerator shall be operated at a minimum incineration temperature of 1300°F during Standby Operating Conditions to assure compliance with the maximum allowable emission rates table (MAERT) limits for volatile organic compounds (VOC) from EPN 8/8A. Standby operating conditions are herein defined as when no process blowers are in operation on any blowing still venting to the direct-flame incinerator. **(8/10)**
 - E. After issuance of the amended permit, the permit holder is allowed to conduct stack sampling of the direct-flame incinerator during normal operations at an average

temperature lower than 1450°F to demonstrate compliance with the MAERT limits for VOC from EPN 8/8A. Upon demonstration of compliance with the MAERT limits for VOC, the permit holder shall submit a permit action to modify the temperature requirement of the direct-flame incinerator during Normal Operations. **(8/10)**

- F. The maximum allowable asphalt throughput rates are 32,063 pounds per hour for Line 1 and 53,438 pounds per hour for Line 3. **(8/10)**
- G. The maximum allowable production rates for both Line 1 and Line 3, combined, are 171 tons per hour and 1,498,000 tons per year of finished shingles. **(8/10)**
- 10. An opacity violation or an odor nuisance condition, as confirmed by the TCEQ or any local air pollution control program with jurisdiction, may be cause for additional controls. If the nuisance condition persists, subsequent stack sampling may also be required.
- 11. All in-plant roads and areas subject to road vehicle traffic shall be paved with a cohesive hard surface and cleaned, as necessary, to maintain compliance with the TCEQ rules and regulations. Unpaved work areas shall be sprayed with water and/or environmentally sensitive chemicals upon detection of visible PM emissions to maintain compliance with all TCEQ rules and regulations.
- 12. All stacks associated with the Line 1 Cooling Section (EPN COOL1) shall be no less than 64 feet measured from ground level. All stacks associated with the Line 3 Cooling Section (EPN COOL3) shall be no less than 73 feet measured from ground level. **(8/10)**
- 13. There shall be no changes in representations unless the permit is altered or amended. **(8/10)**

Continuous Determination of Compliance

- 14. Upon being informed by the TCEQ Executive Director that the staff has documented visible emissions that exceed the specified opacity limits, the holder of this permit may be required to conduct stack sampling analyses or other tests to prove satisfactory abatement or process equipment performance and demonstrate compliance with the PM and VOC allowable emissions specified in the MAERT. Sampling must be conducted in accordance with appropriate procedures of the TCEQ Sampling Procedures Manual and in accordance with applicable EPA CFR procedures. Any deviations from those procedures must be approved by the TCEQ Executive Director prior to sampling. **(8/10)**
- 15. The TCEQ Executive Director may require the permit holder to perform stack sampling or ambient air monitoring to determine the opacity, rate, composition, and/or concentration of the plant's emissions. The holder of this permit may request the TCEQ Executive Director to approve alternate sampling techniques or other means to determine the

opacity, rates, composition, and/or concentration of emissions in accordance with 30 TAC § 101.8. **(8/10)**

16. All stack sampling shall be conducted within 60 days of being informed that testing is required, and it shall meet all requirements specified in the Sampling Requirements section of this permit's special conditions. **(8/10)**
17. For any asphalt storage tank and storage silo and mineral handling facility, visible emissions observations shall be made and recorded once per week. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If the result of the Test Method 9 is opacity above the corresponding opacity limit, the permit holder shall report a deviation. **(8/10)**
18. For any blowing still, visible emissions observations shall be made and recorded once per week. Note that to properly determine the presence of visible emissions, all sources must be in clear view of the observer. The observer shall be at least 15 feet, but not more than 0.25 mile, away from the emission source during the observation. The observer shall select a position where the sun is not directly in the observer's eyes. If the observations cannot be conducted due to weather conditions, the date, time, and specific weather conditions shall be recorded. When condensed water vapor is present within the plume, as it emerges from the emissions outlet, observations must be made beyond the point in the plume at which condensed water vapor is no longer visible. When water vapor within the plume condenses and becomes visible at a distance from the emissions outlet, the observation shall be evaluated at the outlet prior to condensation of water vapor. If visible emissions are observed, the permit holder shall report a deviation. As an alternative, the permit holder may determine the opacity consistent with Test Method 9, as soon as practicable, but no later than 24 hours after observing visible emissions. If a Test Method 9 is performed, the opacity limit is the corresponding opacity limit associated with the particulate matter standard in the underlying requirement. If there is no corresponding opacity limit in the underlying applicable requirement, the maximum opacity will be established using the most recent performance test. If the result of the Test Method 9 is opacity above the corresponding opacity limit (associated with the particulate matter standard in the underlying applicable requirement or as identified as a result of a

previous performance test to establish the maximum opacity limit), the permit holder shall report a deviation. **(8/10)**

19. The temperature in the combustion chamber or immediately downstream of the combustion chamber of the direct-flame incinerator shall be measured and recorded four times per hour with an averaging period of one hour. The permit holder shall establish a minimum combustion temperature using the most recent performance test, manufacturer's recommendations, engineering calculations, and/or historical data. The monitoring instrumentation shall be maintained, calibrated, and operated in accordance with manufacturer's specifications or other written procedures. Any monitoring data below the minimum limit shall be considered and reported as a deviation. **(8/10)**

Sampling Requirements

20. The holder of this permit is responsible for providing sampling and testing facilities and conducting the sampling and testing operations at his expense. Sampling ports and platforms shall be installed on the exhaust stack according to the specifications set forth in the attachment entitled "Chapter 2, Stack Sampling Facilities" prior to stack sampling. Alternate sampling facility designs may be submitted for approval by the TCEQ Executive Director.
21. The plant shall operate at the maximum shingle production and raw material throughput rates and operating parameters, represented in the confidential file, during stack emissions testing being conducted for continuing compliance demonstrations. If the plant is unable to operate at the maximum rates during compliance testing, then the production/throughput rates or other parameters may be limited to the rates established during testing. If stack testing was not accomplished at the maximum production/throughput rates, then such testing may be required prior to actual operations at the maximum rates. **(8/10)**
22. A pretest meeting concerning any required stack sampling and/or ambient air monitoring shall be held with personnel from the appropriate TCEQ Regional Office before the required tests are performed. Air contaminants to be tested for and the test methods to be used shall be determined at this pretest meeting.

The TCEQ Regional Office shall be notified no less than 45 days prior to sampling to schedule a pretest meeting. The notice to the TCEQ Regional Office shall include:

-
- A. Date for pretest meeting;
 - B. Date sampling will occur;
 - C. Name of firm conducting sampling;
 - D. Type of sampling equipment to be used; and
 - E. Method or procedure to be used in sampling.

The purpose of the pretest meeting is to review the necessary sampling and testing procedures, to provide the proper data forms for recording pertinent data, and to review the format procedures for submitting the test results.

23. Air contaminants to be tested for may include (but are not limited to) PM, CO, SO₂, NO_x, and VOC.
24. A written proposed description of any deviation from sampling procedures specified in permit conditions or TCEQ or EPA sampling procedures shall be made available to the TCEQ prior to the pretest meeting. The TCEQ Regional Office shall approve or disapprove of any deviation from specified sampling procedures.
25. The sampling report shall include the following: **(8/10)**
 - A. Plant production and throughput rates during tests; and
 - B. Direct-flame incinerator operating temperature during tests.
26. Copies of the final sampling report shall be submitted within 30 days after sampling is completed. Sampling reports shall comply with the provisions of Chapter 14 of the TCEQ Sampling Procedures Manual. The reports shall be distributed as follows: **(8/10)**

One copy to the TCEQ Dallas/Fort Worth Regional Office; and
One copy to each appropriate local air pollution control program.
27. Requests to waive testing for any pollutant specified in the above special conditions shall be submitted to the TCEQ Office of Air, Air Permits Division.

Recordkeeping Requirements

28. In addition to the recordkeeping requirements specified in General Condition No. 7, 40 CFR Part 60, Subparts A, Dc, and UU, and 40 CFR Part 63, Subparts A and AAAAAAA, the following records shall be kept and maintained on-site for a rolling 60-month period: **(1/12)**
 - A. Records of the exhaust gas temperature immediately downstream of the direct-flame incinerator to demonstrate compliance with 30 TAC § 115.126(1)(A)(i). These records shall be maintained on-site for at least five years;
 - B. Records of either VOC concentration or mass emission rate of each vent gas stream for the Line 1 and Line 3 Cooling Sections at maximum actual operating conditions to demonstrate compliance with 30 TAC § 115.126(4). These records shall be maintained on-site for at least five years;
 - C. Hourly asphalt throughput rates for Line 1 and for Line 3;

- D. Combined Line 1 and Line 3 hourly and annual production rates of finished shingles;
- E. Annual fuel consumption for the Standby Boiler (EPN BLR5);
- F. Records of asphalt stored and used, that have the potential to emit Hazardous Air Pollutants [HAP], shall be kept in sufficient detail in order to allow all required emission rates to be fully and accurately calculated. Using this recorded data, a report shall be produced for the emission of HAPs (in tons per year) over the previous 12 consecutive months;
- G. Records of repairs and maintenance of all pollution abatement equipment;
- H. Records of road cleaning, application of road dust control, or road maintenance for dust control; and
- I. All monitoring data and support information as specified in 30 TAC § 122.144.

Dated: January 20, 2012



12770 Merit Drive | Suite 900 | Dallas, TX 75251 | P (972) 661-8100 | F (972) 385-9203

trinityconsultants.com

Trinity
Consultants

Revised to simply be a request to
change hours to fuel use w/no
change to MAERT.



December 30, 2011

Mr. Joel Stanford
Texas Commission on Environmental Quality
Air Permits Initial Review Team (APIRT)
12100 Park 35 Circle, Mail Code 163
Austin, Texas 78753

RECEIVED

JAN 03 2012

AIR PERMITS DIVISION

APIRT

JAN 03 2012

Re: TCEQ Permit No. 7711A Alteration Request

Building Materials Corporation of America. – Dallas Plant – Dallas County

TCEQ Account No. DB-0378-S, CN 602717464, RN 100788959

Dear Mr. Stanford:

Building Materials Corporation of America doing business as GAF Materials Corporation (GAF) owns and operates an existing asphalt roofing production facility in Dallas, Texas (Dallas Plant). The Texas Commission on Environmental Quality (TCEQ) Account No. for the Dallas Plant is DB-0378-S. GAF operates under TCEQ Customer Reference Number (CN) 602717464, and the Dallas Plant operates under TCEQ Regulated Entity Number (RN) 100788959.

The Dallas Plant was issued New Source Review (NSR) Permit No. 7711A (air quality construction permit). The Dallas Plant operates a Standby Boiler (Emission Point Number [EPN] BLR5) for back-up purposes. Per the NSR Permit No. 7711A Special Condition No. 9.A., the operation of the Standby Boiler is limited to 480 hours per year. As discussed with the TCEQ on December 28, 2011, pursuant to Title 30 of the Texas Administrative Code (30 TAC) Chapter 116.116 *Changes to Facilities* (c)(1), this letter is being submitted to request a change in representation to the Standby Boiler and a revision to Special Condition No. 9.A.¹ This change in representation does not result in an increase in off-property concentrations or affect facility control equipment performance. However, this involves a change in permit condition and therefore requires prior approval from the executive director per 30 TAC 116.116(c)(2). Details regarding the permit alteration are provided below.

1. BACKGROUND

The Dallas Plant operates a Standby Boiler (EPN BLR5) for back-up purposes. Per the NSR Permit No. 7711A Special Condition No. 9.A., the operation of the Standby Boiler is limited to 480 hours per year. The Standby Boiler is used when the Thermal Oxidizer (EPN 8A) and the Waste Heat Boiler (EPN

¹ Telephone conversation between Mr. Joel Stanford (TCEQ) and Ms. Latha Kambham (Trinity Consultants) on December 28, 2011.

WHBLR1) units are shut down. As discussed with the TCEQ on December 28, 2011, the Waste Heat Boiler is currently shut down due to repairs and GAF expects to complete the repairs by the end of February 2012.² Since the GAF Dallas Plant will need to operate the Standby Boiler for more than 480 hours (until the Waste Heat Boiler is repaired), GAF proposes to reduce the maximum heat input rate to represent actual operating conditions and increase the annual hours of operation to 2,280 hours per year in order to accommodate the increased hours of operation and comply with the currently permitted emission rates.

Per the NSR Permit Amendment Application submitted on December 18, 2008, the potential emissions for the Standby Boiler were calculated based on a maximum heat input rate of 38 MMBtu/hr, operated for 480 hours per year. However, the maximum heat input rate for the Standby Boiler is 19 MMBtu/hr and it is actually operated a maximum heat input rate of 8 MMBtu/hr. Therefore, GAF proposes to revise the maximum heat input rate and emission calculations as follows:

- Reduce maximum heat input rate from 38 MMBtu/hr to 8 MMBtu/hr and
- Increase annual hours of operation from 480 to 2,280 hours per year

The proposed revision does not result in any increases to the currently permitted annual emission rates and results in a decrease in currently permitted hourly emission rates. The details of currently permitted emission rates and proposed changes to the heat input rate and emission rates are included in Attachment 1 of this permit alteration letter.

2. PERMIT ALTERATION REQUIREMENTS

The requirements for a permit alteration are addressed below. The permit alteration requirements found in 30 TAC Section 116.116(c) are included in italics.

116.116(c)(1) A permit alteration is:

- (A) a decrease in allowable emissions; or*
- (B) any change from a representation in an application, general condition, or special condition in a permit that does not cause:*
 - (i) a change in the method of control of emissions;*
 - (ii) a change in the character of emissions; or*
 - (iii) an increase in the emission rate of any air contaminant.*

Since the maximum heat input rate is proposed to be reduced from 38 MMBtu/hr to 8 MMBtu/hr, the proposed project results in a decrease in potential hourly emission rates for BLR5. Although GAF proposes to increase the annual hours of operation from 480 to 2,280 hours, this change does not result in any increases to the allowable annual emissions. This change will require a change to Special Condition No. 9.A. of TCEQ

² Telephone conversation between Mr. Joel Stanford (TCEQ) and Ms. Latha Kambham (Trinity Consultants) on December 28, 2011.



Permit No. 7711A for the limitation on hours of operation. The character of emissions will remain the same (i.e., no new air contaminants will be emitted).

116.116(c)(2) Requests for permit alterations that must receive prior approval by the executive director are those that:

(A) result in an increase in off-property concentrations of air contaminants;

(B) involve a change in permit conditions; or

(C) affect facility or control equipment performance.

The proposed project does not result in an increase in off-property concentrations of air contaminants or affect the unit's performance. However, the proposed project involves a change to TCEQ Permit No. 7711A Special Condition No. 9.A, that limits the hours of operation for the Standby Boiler. Therefore, this permit alteration requires prior approval by the executive director.

116.116(c)(3) The executive director shall be notified in writing of all other permit alterations not specified in paragraph (2) of this subsection.

This permit alteration involves a change in permit condition as specified in paragraph (2) of this subsection.

116.116(c)(4) A request for permit alteration shall include information sufficient to demonstrate that the change does not interfere with the owner or operator's previous demonstrations of compliance with the requirements of §116.111(a)(2)(C) of this title.

The reduction in maximum heat input rate and increase in hours of operation for the Standby Boiler will not interfere with previous demonstrations of compliance with the requirements of 30 TAC 116.111(a)(2)(C) – *Best Available Control Technology*.

116.116(c)(5) Permit alterations are not subject to the requirements of §116.111(a)(2)(C) of this title.


GAF understands that permit alterations are not subject to the requirements of 30 TAC 116.111(a)(2)(C) – *Best Available Control Technology* of this title.

Mr. Stanford, TCEQ Air Permits Division – Page 4
December 30, 2011

If you have any questions regarding this submittal, please feel free to call me at (972) 661-8100 or Mr. Durwin Farlough of GAF at (214) 637-8977.

Sincerely,

TRINITY CONSULTANTS



Latha Kambham
Senior Consultant

Attachments

cc: Mr. Tony Walker, TCEQ Regional Office 4
Mr. David Miller, City of Dallas, Air Pollution Control Program
Mr. Durwin Farlough, GAF
Mr. Fred Bright, GAF
Mr. Bruce Dahlgren, GAF
Ms. Christine M. Otto Chambers, Trinity Consultants



Joel Stanford - Re: GAF Dallas Plant - Permit Alteration Request for Changes to the Standby Boiler

From: Latha Kambham <LKambham@trinityconsultants.com>
To: "Joel Stanford" <Joel.Stanford@tceq.texas.gov>
Date: 1/11/2012 3:13 PM
Subject: Re: GAF Dallas Plant - Permit Alteration Request for Changes to the Standby Boiler

Joel,

The heating value used for the natural gas is 1,012 btu/scf. Based on this heating value, the annual fuel consumption is estimated as 18 MMscf, calculated as follows:

Maximum annual heat input = 2,280 hours per year * 8 MMBtu/hr = 18,240 MMBtu per year

Conversion from MMBtu to MMscf: 18,240 MMBtu / (1,012 btu/scf) = 18.02 MMscf per year.

Please let me know if these conversions are acceptable for the fuel usage. This method is used for calculating actual emissions for EIQ purposes as well.

Thanks,
 Latha

Latha Kambham, Ph.D.
 Senior Consultant

Trinity Consultants
 12770 Merit Drive, Suite 900
 Dallas, TX 75251
 Tel: 972-661-8100
 Fax: 972-385-9203
www.trinityconsultants.com

From: "Joel Stanford" <Joel.Stanford@tceq.texas.gov>
To: "Latha Kambham" <LKambham@trinityconsultants.com>
Date: 01/11/2012 01:41 PM
Subject: Re: GAF Dallas Plant - Permit Alteration Request for Changes to the Standby Boiler

One more request - can I get a version of this with the conversion into actual fuel use rather than heat input? Apparently there is precedent for dictating fuel use rather than heat input.

>>> Latha Kambham <LKambham@trinityconsultants.com> 1/11/2012 12:52 PM >>>
 Joel.

That is correct. It does not affect MAERT, since there is no change any emissions (hourly or annual)

Thanks,
Latha

Latha Kambham, Ph.D.
Senior Consultant

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From: "Joel Stanford" <Joel.Stanford@tceq.texas.gov>
To: "Latha Kambham" <LKambham@trinityconsultants.com>
Date: 01/11/2012 12:51 PM
Subject: Re: GAF Dallas Plant - Permit Alteration Request for Changes to the Standby Boiler

Also, just to make sure... This would not affect the MAERT as it was proposed to exist for the alteration, correct?

>>> Latha Kambham <LKambham@trinityconsultants.com> 1/11/2012 12:48 PM >>>
Joel,

Thank you very much for considering our request to revise the permit condition. As I mentioned during the phone call, the maximum hourly emissions for the Standby Boiler are calculated based on a maximum heat input rate of 8 MMBtu/hr and the annual emissions are based on 2,280 hours of operation per year, at a maximum heat input rate of 8 MMBtu/hr (i.e., 2,280 hrs/yr * 8 MMBtu/hr). Since the boiler is used for backup purposes, it may not be operated at its full capacity all the time. Therefore, in order to provide additional flexibility the boiler's operation for backup purposes, we request the following changes to Special Conditions 9.A. and 9.B (noted in blue color font).

Current Versions:

- SC. 9.A: The permitted emission limits for all emission point numbers (EPN), with the exception of the Standby Boiler (EPN BLR5), are based on 8,760 annual hours of operation. Operation of the Standby Boiler shall be limited to 2,280 hours per year. **(1/12)**
- SC. 9.B: The Standby Boiler (EPN BLR5) shall be limited to a maximum heat input rate of 8 million British thermal units per hour. **(1/12)**

Requested Changes:

- S.C. 9.A: The permitted emission limits for all emission point numbers (EPN), with the exception of the Standby Boiler (EPN BLR5), are based on 8,760 annual hours of operation. ~~Operation of the Standby Boiler shall be limited to 2,280 hours per year.~~ **(1/12)**

- SC. 9.B: The Standby Boiler (EPN BLR5) shall be limited to a maximum heat input rate of 8 million British thermal units per hour and a maximum annual heat input rate of 18,240 million British thermal units per year. (1/12)

These changes will not result in any increase in hourly or annual emissions represented in the permit alteration request. Please let us know these changes can be accommodated in the permit.

Thanks,
Latha

Latha Kambham, Ph.D.
Senior Consultant

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From: "Joel Stanford" <Joel.Stanford@tceq.texas.gov>
To: "Latha Kambham" <LKambham@trinityconsultants.com>
Date: 01/11/2012 08:55 AM
Subject: Re: GAF Dallas Plant - Permit Alteration Request for Changes to the Standby Boiler

Ok. Thank you very much. I'll send it up for signature.

>>> Latha Kambham <LKambham@trinityconsultants.com> 1/10/2012 4:18 PM >>>
Joel,

Thank you very much for providing the draft permit for our review. The special conditions and the emission rates look good, except that revised year at the bottom of the MAERT table needs to be changed from 2010 to 2012. However, we would like to confirm these changes with GAF and let you know if there are any concerns.

Thanks,
Latha

Latha Kambham, Ph.D.
Senior Consultant

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From: "Joel Stanford" <Joel.Stanford@tceq.texas.gov>
 To: "Latha Kambham" <LKambham@trinityconsultants.com>
 Date: 01/10/2012 03:25 PM
 Subject: Re: GAF Dallas Plant - Permit Alteration Request for Changes to the Standby Boiler

Hi Latha,

Please let me know ASAP if these are acceptable. Note that I have been required to limit the heat input rate of the boiler in the Special Conditions. I currently have this dated for issuance on January 17.

Thanks,
 -joel-

>>> Latha Kambham <LKambham@trinityconsultants.com> 12/30/2011 12:55 PM >>>
 Joel,

As we discussed earlier this week, the GAF Dallas Plant requests changes to the Standby Boiler since the current main boiler is down due to repairs. Please find attached an electronic copy of the permit alteration request letter submitted to the TCEQ today.

This permit alteration involves a change in permit condition. Since the change may not be effective until TCEQ approves the permit alteration request, we request you to review the letter and let us know if you need any additional details at your earlier possible convenience.

Thanks and Have a Happy New Year!
 Latha

Latha Kambham, Ph.D.
 Senior Consultant

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The information transmitted is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged

ATTACHMENT 1. EMISSION CALCULATIONS FOR STANDBY BOILER

APIRT

JAN 01 2012

Attachment 1: Emission Calculations for the Standby Boiler Vent (EPN: BLR5)

Natural Gas Combustion Emission Factors

Reference for Emission Factors	Fuel	Units	CO	NO _x	PM/PM ₁₀	SO ₂	VOC
AP-42, Sec. 1.4, Table 1.4-1 (7/98), Table 1.4-2 (7/98)	Natural Gas (Boilers < 100 MMBtu/hr)	lb/MMscf ¹	83.34	99.22	7.54	0.60	5.46
	Uncontrolled	lb/MMBtu ²	0.0824	0.0980	0.0075	0.0006	0.0054

¹ AP-42 emission factors converted to the Dallas Facility heating value by multiplying the given emission factor by the ratio of the facility heating value to the average heating value (1,012/1,020).

² Emission factors converted from MMscf to MMBtu, based on the facility heating value of 1,012 Btu/scf.

Currently Permitted and Proposed Hourly and Annual Emissions for the Standby Boiler Vent (EPN: BLR5)

Scenario	FIN	EPN	Source Name	Heat Input Rate ^{3,4} (MMBtu/hr)	Annual Hours of Operation ^{3,4} (hr/yr)	Maximum Hourly Emissions (lb/hr)					Annual Emissions (tpy)				
						CO	NO _x	PM/PM ₁₀	SO ₂	VOC	CO	NO _x	PM/PM ₁₀	SO ₂	VOC
Currently Permitted ³	BLR5	BLR5	Standby Boiler Vent	38.00	480	3.13	3.73	0.28	0.02	0.20	0.75	0.90	0.07	<0.01	0.05
Proposed Changes ⁴	BLR5	BLR5	Standby Boiler Vent	8.00	2,280	0.66	0.78	0.06	<0.01	0.04	0.75	0.89	0.07	<0.01	0.05

³ The Standby Boiler (EPN BLR5) is currently permitted under NSR Permit No. 7711A. This boiler is authorized to be operated when the Thermal Oxidizer and the Waste Heat Boiler units are shut down. The potential emissions from the boiler were estimated using a maximum heat input rate of 38 MMBtu/hr and limited to 480 hours of operation per year (per Special Condition No. 9 A).

⁴ Per the information provided by Mr. Durwin Farlough (GAF Dallas Plant) to Ms. Latha Kambham (Trinity) on December 28, 2011, the Standby Boiler has a maximum heat input rate of 19 MMBtu/hr. However, this unit is operated at a maximum heat input rate of 8 MMBtu/hr. Therefore, GAF Dallas Plant proposes to limit the maximum heat input rate to 8 MMBtu/hr and increase the annual hours of operation to 2,280 hours per year.

Sample Emission Calculation for CO:

$$\begin{aligned} \text{CO Emission Rate (lb/hr)} &= \frac{0.0824 \text{ lb}}{1 \text{ MMBtu}} \times \frac{38 \text{ MMBtu}}{1 \text{ hr}} = 3.13 \\ \text{CO Emission Rate (tpy)} &= \frac{3.13 \text{ lb}}{1 \text{ hr}} \times \frac{480 \text{ hr}}{1 \text{ year}} \times \frac{1 \text{ ton}}{2,000 \text{ lb}} = 0.75 \end{aligned}$$

8 x 2280 =